

AMENDMENTS TO THE CLAIMS

1. (Currently amended) An implant for use in maintaining a desired distance between first and second bisected bone ends of a patient's the spinal column, said implant comprising:

(a) a body portion having a length and configured to be insertable between first and second bisected bone ends of the spinous ~~spinious~~ process of a single vertebra, the body portion having an outer surface, and an inner surface defining a substantially hollow portion, the body portion further having an inner side region having an inner side length, and first and second ends which communicate with said hollow portion, the first and second ends comprising bone engaging portions, at least one of the bone engaging portions comprises surface projections to reduce slippage between the bone engaging portions and the respective said bone segment, wherein said bone engaging portions are angled with respect to each other, and said implant is configured so as not to protrude into the spinal canal when inserted between the first and second bone ends; and
wherein the inner side region is angled with respect to each of the bone engaging portions at an angle ranging from about 50 to about 70 degrees.

2. (Canceled).

3. (Currently amended) The implant of claim 2 wherein ~~the angle ranges from about 50 to about 70 degrees, and~~ the inner side length ranges from about 6 to about 10 millimeters.

4. (Original) The implant of claim 1 wherein the perimeter of the outer surface of the implant is a substantially geometric shape.

5. (Original) The implant of claim 4 wherein the geometric shape is an ellipse having a width and a depth.

6. (Original) The implant of claim 5 wherein the width ranges from about 10.0 to about 11.5 millimeters and the depth ranges from about 6.5 to about 7.5 millimeters.

7. (Original) The implant of claim 4 wherein the geometric shape is a circle.

8. (Original) The implant of claim 1, wherein the surface projections comprise saw tooth ridges.
9. (Original) The implant of claim 1 wherein the surface projections comprise individual pyramidal teeth.
10. (Original) The implant of claim 1, wherein each of the first and second ends further comprises a channel configured to accept the arms of a pair of distractor pliers.
11. (Original) The implant of claim 1 wherein the body portion further comprises at least one hollow suture attachment portion to enable a surgeon to secure the implant to at least one of said first and second bone segments.
12. (Original) The implant of claim 1 wherein the implant is formed of a bone allograft material.
13. (Original) The implant of claim 12 wherein at least one of the first and second bone engaging portions is comprised of demineralized bone.
14. (Previously presented) The implant of claim 12 wherein the bone allograft material is obtained from a cross-section of a donor bone having an intermedullary canal, and wherein said inner surface of the implant is defined by the intermedullary canal of the donor bone.
15. (Original) The implant of claim 12 wherein said inner surface is configured such that the volume of said substantially hollow portion is greater than the intermedullary canal of the donor bone.
16. (Original) The implant of claim 1 wherein the implant is fabricated of biocompatible metal.
17. (Original) The implant of claim 1 wherein the implant is fabricated of biocompatible polymer.
18. (Currently amended) An implant for use in the spinal column, the implant comprising:

(a) a body portion having a width, a depth, an inner side region comprising an inner side length and configured to be insertable between first and second bone segments of a spinous process of a single vertebra, the body portion having first and second ends, at least one of the first and second ends comprising a bone engaging portion to engage at least one of the first and second bone segments, wherein the implant is formed of bone allograft material, and at least one of the first and second bone engaging portions is comprised of a demineralized allograft material,

wherein the inner side region is angled with respect to each of the bone engaging portions at an angle ranging from about 50 to about 70 degrees.

19. (Original) The implant of claim 18 wherein the body portion further comprises a wall having an outer surface, and an inner surface defining a substantially hollow portion, wherein the hollow portion is in communication with the first and second ends.

20. (Previously presented) The implant of claim 19 wherein the bone allograft material is obtained from a cross-section of a donor bone having an intermedullary canal, and wherein said hollow portion is defined by the intermedullary canal of the donor bone.

21. (Original) The implant of claim 19 wherein said inner surface is configured such that the volume of said substantially hollow portion is greater than the intermedullary canal of the donor bone.

22. (Original) The implant of claim 18 wherein the at least one of said first and second bone engaging portions further comprises surface projections configured to retain said implant within the first and second bone segments.

23. (Original) The implant of claim 22 wherein the surface projections comprise saw-tooth ridges.

24. (Original) The implant of claim 22 wherein the surface projections comprise individual pyramidal teeth.

25. (Canceled).

26. (Currently amended) The implant of claim 25 wherein ~~the angle ranges from about 50 to about 70 degrees,~~ the inner side length ranges from about 6 to about 10 millimeters, the

width ranges from about 10 millimeters to about 11.5 millimeters, and the depth ranges from about 6.5 millimeters to about 7.7 millimeters.

27-53. (Canceled).